

# GWT - BOOKMARK SUPPORT

[http://www.tutorialspoint.com/gwt/gwt\\_bookmark\\_support.htm](http://www.tutorialspoint.com/gwt/gwt_bookmark_support.htm)

Copyright © tutorialspoint.com

GWT supports browser history management using a History class for which you can reference *GWT - History Class* chapter.

GWT uses a term **token** which is simply a string that the application can parse to return to a particular state. Application will save this token in browser's history as URL fragment.

In *GWT - History Class* chapter, we handle the token creation and setting in the history by writing code.

In this article, we will discuss a special widget Hyperlink which does the token creation and history management for us automatically and gives application capability of bookmarking.

## Bookmarking Example

This example will take you through simple steps to demonstrate Bookmarking of a GWT application. Follow the following steps to update the GWT application we created in *GWT - Create Application* chapter:

Step	Description
1	Create a project with a name <i>HelloWorld</i> under a package <i>com.tutorialspoint</i> as explained in the <i>GWT - Create Application</i> chapter.
2	Modify <i>HelloWorld.gwt.xml</i> , <i>HelloWorld.css</i> , <i>HelloWorld.html</i> and <i>HelloWorld.java</i> as explained below. Keep rest of the files unchanged.
3	Compile and run the application to verify the result of the implemented logic.

Following is the content of the modified module descriptor **src/com.tutorialspoint/HelloWorld.gwt.xml**.

```
<?xml version="1.0" encoding="UTF-8"?>
<module rename-to='helloworld'>
  <!-- Inherit the core Web Toolkit stuff. -->
  <inherits name='com.google.gwt.user.User' />

  <!-- Inherit the default GWT style sheet. -->
  <inherits name='com.google.gwt.user.theme.clean.Clean' />

  <!-- Specify the app entry point class. -->
  <entry-point class='com.tutorialspoint.client.HelloWorld' />
  <!-- Specify the paths for translatable code -->
  <source path='client' />
  <source path='shared' />
</module>
```

Following is the content of the modified Style Sheet file **war/HelloWorld.css**.

```
body{
  text-align: center;
  font-family: verdana, sans-serif;
}
h1{
  font-size: 2em;
  font-weight: bold;
```

```
color: #777777;
margin: 40px 0px 70px;
text-align: center;
}
```

Following is the content of the modified HTML host file **war/HelloWorld.html**

```
<html>
<head>
<title>Hello World</title>
  <link rel="stylesheet" href="HelloWorld.css"/>
  <script language="javascript" src="helloworld/helloworld.nocache.js">
  </script>
</head>
<body>

<iframe src="javascript:''"

  style="width:0;height:0;border:0"></iframe>
<h1> Bookmarking Demonstration</h1>
<div ></div>

</body>
</html>
```

Let us have following content of Java file **src/com.tutorialspoint/HelloWorld.java** using which we will demonstrate Bookmarking in GWT Code.

```
package com.tutorialspoint.client;

import com.google.gwt.core.client.EntryPoint;
import com.google.gwt.event.logical.shared.ValueChangeEvent;
import com.google.gwt.event.logical.shared.ValueChangeHandler;
import com.google.gwt.user.client.History;
import com.google.gwt.user.client.ui.HTML;
import com.google.gwt.user.client.ui.HorizontalPanel;
import com.google.gwt.user.client.ui.Hyperlink;
import com.google.gwt.user.client.ui.RootPanel;
import com.google.gwt.user.client.ui.TabPanel;
import com.google.gwt.user.client.ui.VerticalPanel;

public class HelloWorld implements EntryPoint {

    private TabPanel tabPanel;

    private void selectTab(String historyToken) {
        /* parse the history token */
        try {
            if (historyToken.substring(0, 9).equals("pageIndex")) {
                String tabIndexToken = historyToken.substring(9, 10);
                int tabIndex = Integer.parseInt(tabIndexToken);
                /* Select the specified tab panel */
                tabPanel.selectTab(tabIndex);
            } else {
                tabPanel.selectTab(0);
            }
        } catch (IndexOutOfBoundsException e) {
            tabPanel.selectTab(0);
        }
    }

    /**
     * This is the entry point method.
     */
    public void onModuleLoad() {
        /* create a tab panel to carry multiple pages */
        tabPanel = new TabPanel();

        /* create pages */
        HTML firstPage = new HTML("<h1>We are on first Page.</h1>");
```

```

HTML secondPage = new HTML("<h1>We are on second Page.</h1>");
HTML thirdPage = new HTML("<h1>We are on third Page.</h1>");

String firstPageTitle = "First Page";
String secondPageTitle = "Second Page";
String thirdPageTitle = "Third Page";

Hyperlink firstPageLink = new Hyperlink("1", "pageIndex0");
Hyperlink secondPageLink = new Hyperlink("2", "pageIndex1");
Hyperlink thirdPageLink = new Hyperlink("3", "pageIndex2");

HorizontalPanel linksHPanel = new HorizontalPanel();
linksHPanel.setSpacing(10);
linksHPanel.add(firstPageLink);
linksHPanel.add(secondPageLink);
linksHPanel.add(thirdPageLink);

/* If the application starts with no history token,
   redirect to a pageIndex0 */
String initToken = History.getToken();

if (initToken.length() == 0) {
    History newItem("pageIndex0");
    initToken = "pageIndex0";
}

tabPanel.setWidth("400");
/* add pages to tabPanel */
tabPanel.add(firstPage, firstPageTitle);
tabPanel.add(secondPage, secondPageTitle);
tabPanel.add(thirdPage, thirdPageTitle);

/* add value change handler to History
 * this method will be called, when browser's Back button
 * or Forward button are clicked.
 * and URL of application changes.
 * */
History.addValueChangeHandler(new ValueChangeHandler<String>() {
    @Override
    public void onValueChange(ValueChangeEvent<String> event) {
        selectTab(event.getValue());
    }
});

selectTab(initToken);

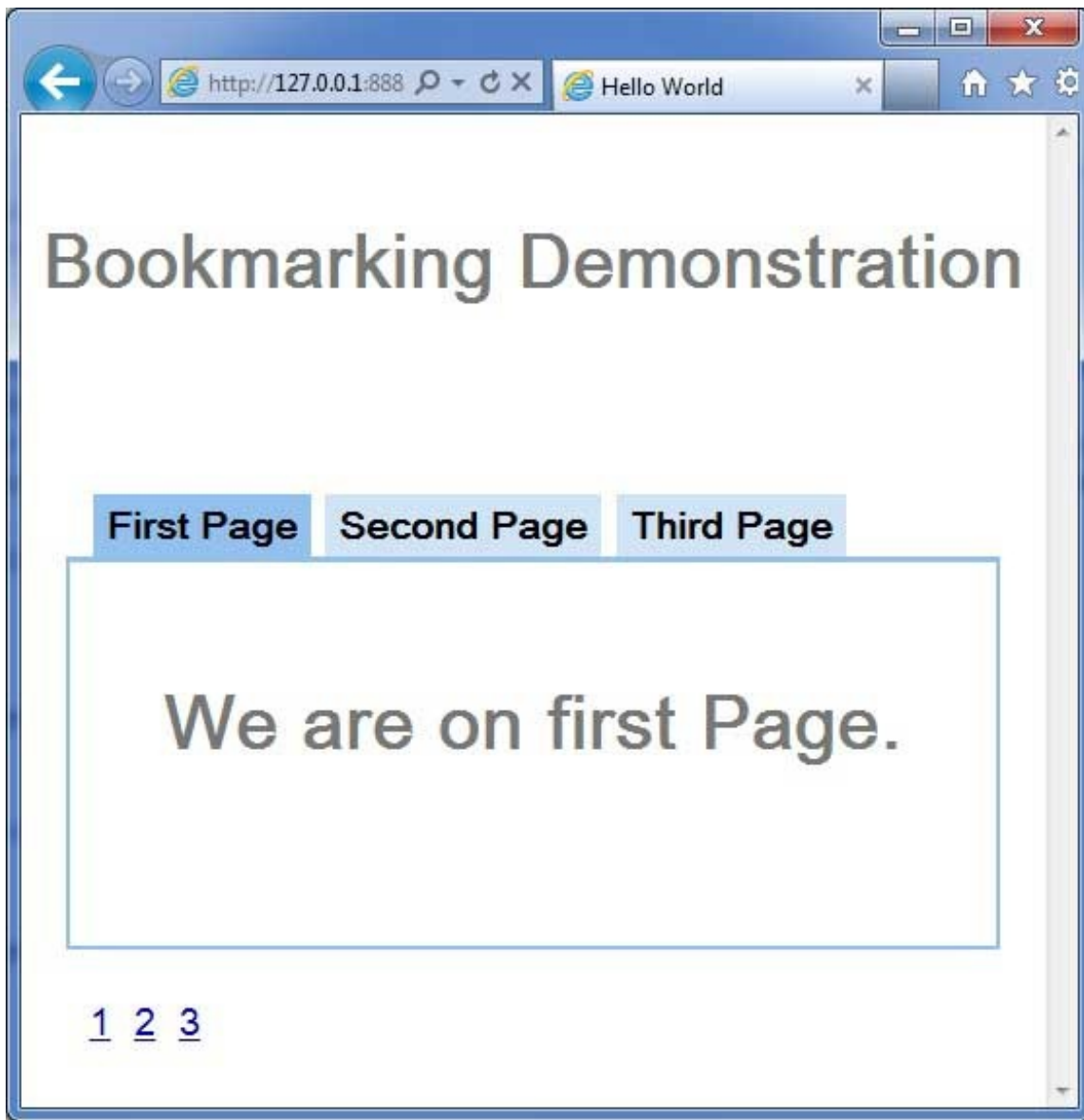
VerticalPanel vPanel = new VerticalPanel();

vPanel.setSpacing(10);
vPanel.add(tabPanel);
vPanel.add(linksHPanel);

/* add controls to RootPanel */
RootPanel.get().add(vPanel);
}
}

```

Once you are ready with all the changes done, let us compile and run the application in development mode as we did in [GWT - Create Application](#) chapter. If everything is fine with your application, this will produce following result:



- Now click on 1, 2 or 3. You can notice that the tab changes with indexes.
- You should notice, when you click on 1,2 or 3 ,application url is changed and #pageIndex is added to the url
- You can also see that browser's back and forward buttons are enabled now.
- Use back and forward button of the browser and you will see the different tabs get selected accordingly.
- Right Click on 1, 2 or 3. You can see options like open, open in new window, open in new tab, add to favourites etc.
- ight Click on 3. Choose add to favourites. Save bookmark as page 3.
- Open favourites and choose page 3. You will see the third tab selected.